

REMARKS

Applicant is in receipt of the Office Action mailed May 21, 2004. Claims 1-38 remain pending in the application. Reconsideration is respectfully requested in light of the following remarks.

Section 103(a) Rejection:

The Office Action rejected claims 1-38 under 35 U.S.C. § 103(a) as being unpatentable over Cheesman et al. (U.S. Patent 6,680,933, hereinafter "Cheesman") in view of Maresco (U.S. Patent 6,418,458). Applicants respectfully traverse this rejection for at least the following reasons.

Cheesman teaches a telecommunications switch for switching protocol data units between communications links connecting the telecommunications switch into a communications network. The telecommunications switch of Cheesman is operable to switch protocol data units of a plurality of services and includes a structure of queues and schedulers associated with one of the communications links. The queues and schedulers of Cheesman's switch are arranged to provide for each service one of class-based traffic management, flow-based traffic management, and traffic management that is both class-based and flow-based. Cheesman -- col. 1, lines 45-60; col. 10, lines 51-67.

Maresco teaches a task queue and a work crew class that contains workers to complete the tasks. Maresco's system creates threads to connect the workers to the tasks in the task queue, and manages the creation of threads to prioritize the execution of the tasks using object oriented programming techniques. Maresco -- col. 1, lines 42-57; col. 2, lines 25-38.

Thus, Cheesman pertains to the low-level switching of data packets according to communication protocols, such as for ATM cells or IP packets (Cheesman -- col. 5, lines 35-48; col. 8, lines 8-13), and Maresco pertains to the creation of threads to prioritize the

execution of tasks in an object oriented system (Maresco -- col. 1, lines 42-57; col. 2, lines 25-38). Neither Cheesman nor Maresco has anything to do with scheduling requests for networked data resources. The protocol data units handled by Cheesman's switch are not taught to be requests for networked data resources. And the threads in Maresco are not requests for networked data resources. Thus, Cheesman and Maresco clearly do not teach or suggest anything about scheduling requests for networked data resources.

Furthermore, Cheesman in view of Maresco does not teach a secondary scheduler that is executable to receive a plurality of requests from a multi-threaded application in a thread-safe manner and send the requests to the primary scheduler in a thread-safe manner. The Examiner appears to be relying on Cheesman's priority scheduler (P) and weighted fair queuing (WFQ) scheduler (W) of scheduler 144(a) in Fig. 8 and as described at col. 11, lines 5-30 of Cheesman. However, Cheesman's scheduler 144(a) receives protocol data units from queues 142, not requests for networked data resources from a multi-threaded application. As discussed above, Cheesman's teachings pertain to a telecommunication switch that switches protocol data units. Thus, the scheduler in Cheesman is scheduling for the switching of data units according to a communication protocol. The data in Cheesman is not scheduled as requests for networked data resources. Scheduling for low-level switching of protocol data units has nothing to do with scheduling requests for networked data resources.

Moreover, the protocol data units received by the scheduler in Cheesman are received from queues 142, not from a multi-threaded application. The multiple queues in Cheesman in no way imply any type of multi-threaded application. In fact, Cheesman's teachings all apply at low-level communication protocol level, not at an application level.

In regard to a secondary scheduler receiving requests in a thread-safe manner and sending the requests to a primary scheduler in a thread-safe manner, the Examiner admits that Cheesman does not teach a thread safe system and relies on Maresco. However, Maresco is concerned with safe thread creation for task execution in a computer system (Maresco -- col. 1, lines 42-57; col. 2, lines 25-38). Maresco teaches nothing about a

scheduler receiving and sending requests in a thread-safe manner. Just because Maresco mentions thread creation safety for task execution does not mean that Maresco suggests receiving and sending requests by schedulers in a thread-safe manner. As discussed above, neither Cheesman nor Maresco has anything to do with scheduling requests from a multi-threaded application, let alone receiving and sending requests for scheduling in a thread-safe manner. Furthermore, the protocol data units scheduled in Cheesman's switch are simply low-level data units and do not have any sort of multi-threaded nature for which thread safety would be a concern. It would make no sense to apply any sort of thread safety techniques to Cheesman's telecommunications switch. Thus, Cheesman in view of Maresco clearly does not teach a secondary scheduler that is executable to receive a plurality of requests from a multi-threaded application in a thread-safe manner and send the requests to the primary scheduler in a thread-safe manner.

Furthermore, the Examiner has failed to state a proper *prima facie* rejection under § 103(a) since the Examiner did not show how the prior art suggests or motivates the Examiner's modification or combination of the teachings of Cheesman and Maresco. This is a basic requirement of all obviousness rejections (*see* M.P.E.P. 2143). Since the Examiner did not satisfy this basic requirement, the rejection is clearly improper. Moreover, as discussed above, it would make no sense to apply any sort of thread safety techniques to Cheesman's telecommunications switch since the protocol data units scheduled in Cheesman's switch are simply low-level data units and do not have any sort of multi-threaded nature for which thread safety would be a concern.

Similar arguments apply for the other independent claims. For at least the above reasons, the rejection is clearly unsupported by the cited art and should be withdrawn.

Applicants also specifically traverse the Examiner's rejection of each of the dependent claims. In regard to each dependent claim, Applicants see little, if any, relevance of the sections of Cheesman and Maresco cited by the Examiner. For example, in regard to claims 2 and 3, the Examiner cites col. 1, lines 32-38 and col. 2, lines 47-52

of Maresco. However, these portions of Maresco say absolutely nothing about a primary scheduler being single-threaded and a secondary scheduler being multi-threaded.

Similarly, the sections of Cheesman and Maresco cited by the Examiner in regard to claims 4 and 5 say absolutely nothing about receiving requests through a lock.

In regard to claims 6 and 7, there is no teaching in Cheesman and Maresco of a management information server, management requests, manager application or managed objects. These terms all have a specific meaning in the art and are clearly not described in Cheesman and Maresco. The scheduler 144a has nothing to do with a management information server. Also, contrary to the Examiner's assertion, the manager in Maresco is not described as being multi-threaded and is not part of an application that sends requests for networked data resources.

The other dependent claims are likewise easily distinguished over the cited art. The sections of the Cheesman and Maresco cited by the Examiner in regard to each dependent claim appear to have no relevance at all to the features recited in the respective claims. However, since the independent claims have been shown to be patentably distinguishable, a thorough discussion of each dependent claim is not required at this time. However, Applicants reserve the right to make further arguments at a later date if necessary.

CONCLUSION

Applicants submit the application is in condition for allowance, and notice to that effect is respectfully requested.

If any extension of time (under 37 C.F.R. § 1.136) is necessary to prevent the above referenced application from becoming abandoned, Applicants hereby petition for such extension. If any fees are due, the Commissioner is authorized to charge said fees to Meyertons, Hood, Kivlin, Kowert, & Goetzel, P.C. Deposit Account No. 501505/5181-48600/RCK.

Also enclosed herewith are the following items:

- ☒ Return Receipt Postcard
- ☐ Petition for Extension of Time
- ☐ Notice of Change of Address
- ☐ Fee Authorization Form authorizing a deposit account debit in the amount of \$
for fees ().
- ☐ Other:

Respectfully submitted,



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